(UK) is using EAD for the very detailed item-level descriptions provided in their hand lists.

EAD is flexible enough to support many different types of screen or page formatting. EAD is ISAD(G) compliant (International Standard Archival Description General), and is based on SGML (Standard Generalized Markup Language), ISO 8879. SGML is platform independent and nonproprietary, supporting much more sophisticated navigation and retrieval in a World Wide Web environment than does the more commonly known HTML (hyper text mark-up language). SGML documents are stored as ASCII text, a stable data storage mechanism.

The intellectual component of the community-based EAD standard is owned by the Society of American Archivists; the standard is maintained by SAA's Technical Subcomittee on Descriptive Standards Encoded Archival Description Working Group (EADWG). The Working Group has representatives from Canada and the United Kingdom, as well as from a variety of repositories within the U.S. In partnership with SAA, the Library of Congress Network Development/MARC Standards

Office makes available the EAD files at its FTP site, and maintains the EAD web site.

For more information on EAD, visit the EAD web site at <www.loc.gov/ead/>. There is also an EAD listserv <ead@loc.gov>, where everything from institutional tagging practice to the pros and cons of various pieces of software is discussed (instructions for subscribing to the listserv are available at the web site).

Two recent issues of *The American Archivist* are dedicated to EAD: the first (vol. 60, #3, Summer 1997) contains articles that cover context and theory, and the second (vol. 60, #4, Fall 1997) includes six case studies from repositories that have implemented EAD. For those who are interested in putting EAD into practice, the *EAD Tag Library* (Chicago: Society of American Archivists, 1998) is an essential tool. For more information on SGML and XML, visit Robin Cover's home page <www.oasis-open.org/cover>.

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Lynn Marie Mitchell

Archival Reorganization at Little Bighorn Battlefield

riginal ledger drawings made by Richard Woodenleg, a Cheyenne who participated in the Battle of the Little Bighorn June 25-27, 1876; letters from General Philip Sheridan to Brevet Brigadier General George Armstrong Custer during the Civil War; a full halfplate tintype of Brevet Major General George Armstrong Custer in civilian clothes taken by the photographer Eastabrooke in New York's Union Square; Custer's military commissions signed by presidents Abraham Lincoln and Andrew Johnson; all these items represent just a small portion of the archival holdings being treated at Little Bighorn Battlefield during the next four years.

At the request of Matthew Wilson, curator at the National Park Service Intermountain Region's Support Office in Denver, this author completed the first official archival assessment of Little Bighorn Battlefield National Monument in May 1996. The author evaluated archival holdings, including the photographic collection, rare books, and archival materials and provided suggestions

for their preservation, arrangement, description, and use for reference. The park's archival collections, described below, rank with the finest in the National Park Service.

The Elizabeth Bacon Custer Collection (Accession #19), donated to the park in 1943. After Custer's widow Elizabeth died in 1932, his personal papers were stored in trunks and kept intact by a trust administered by a New York City bank, until such time that a museum could be constructed to display the collection according to her wishes. This collection includes George Armstrong Custer's personal effects and clothing, as well as extensive photographic and documentary items. A large portion of the archival materials include Custer's military records and correspondence beginning with the West Point years and continuing through the Civil War. The final portion concerns the Indian Campaigns, from the Battle of the Washita through to the end at Little Bighorn.

The Walter Mason Camp Collection (Accession #312), contains primary source materi-

als about the Battle of the Little Bighorn from the perspective of battle participants and survivors. Walter Mason Camp completed these early interviews after the turn of the century, when he was an employee of the Chicago Burlington & Quincy Railroad. This is one of the collections most heavily used by researchers.

The Seventh Cavalry War Records (Accession #11), originally located in a quartermaster's building in Fort Bliss, Texas, and transferred to the park around 1942. These materials primarily pertain to the Seventh Cavalry between the years 1865-1910.

Little Bighorn also has a vast collection of original 19th-century photographic materials including ambrotypes, tintypes, albumen prints, stereographs, and lantern slides, as well as cartes de visite and cabinet cards. These images document military forts and posts, military life (soldiers and scouts, camps, daily occupations, campaigns, etc.), American Indian views (personalities, daily life, etc.), and myriad additional plains-related subjects and activities. In addition, other historical events (dedications, ceremonies, etc.) are covered. All items are valuable, both as artifacts and as historical evidence.

Additionally, the photographers themselves have historical significance, both individually and when viewed collectively. Their names include such well-known 19th-century American photographers as David F. Barry, Christian Barthelmess, William R. Cross, Orlando S. Goff, John C.H. Grabill, Frank J. Haynes, John K. Hillers, Stanley J.

Morrow, and George E. Trager. Rare or lesser-

tographers such as William S. Soule have been tentatively identified.

The park also has a fairly extensive collection of rare book material with significant value. While some titles may also be located in other libraries or special collections, the park has many extremely rare volumes that have high value for military historians and collectors of Western Americana. In addition to such expected items as four copies of My Life on the

known views by pho-

Plains, by George A. Custer, the collection also contained such oddities as Recollections of Old *Milestown,* by S. Gordon, published in Miles City, Montana, in 1918, and inscribed by the author.

Collection Challenges That Limit Usage

Unfortunately, access and use of the materials by researchers and historians have been hampered by overcrowding, lack of finding aids, incorrect cataloging information, and poor storage conditions. The most apparent and significant problem with the archival materials at the park stems from the fact that at some point in the past, all items from all the unique collections (accessions) had been merged—mingling items of different provenance and obliterating original collection order. These intermingled collections were then stored together, thereby creating a substantial problem in access to the collections. Furthermore, all letters and documents had been cataloged at the item level. Often each page of a letter was given its own catalog number. Due to this loss of provenance and original order and chaotic cataloging, it has been impossible to create a finding aid for any given collection.

In the photographic collections, there are extreme cases where 50 or 60 copy photographs of the identical images or events were cataloged, again each with a unique catalog number. There is an existing register of photographs, but it has not been updated since it was originally created.

Planning for Improved Access

Based on the findings and observations during the initial two-week visit, the author prepared a series of detailed recommendations to guide the park over the next four to five years in the reorganization of the archival holdings. Foremost was the proposal that materials should be reassembled into their original provenances (original collections by their history of creation and ownership). Although labor intensive, this work would be well worth the effort as over 40 archival collections would be accessioned, cataloged, and rehoused and stored with an extensive finding aid completed for each. The collections would also be microfilmed, and when additional funding is obtained, scanned onto CD ROM. Microfilming and scanning will greatly enhance access to collections as well as provide copies to take the place of the original for preservation and security purposes.

This initial report served to obtain the extensive funding needed to correctly inventory and reassemble historic collections, catalog and re-catalog items, complete storage upgrades of all archival materials, and complete conservation treatments for certain items.

In the fall of 1997, planning began for the three Little Bighorn archival projects. It was decided that the re-establishment of the prove-

Chief Sitting Bull, 1885. Photo by D.F. Barry courtesy NPS.





General George A. Custer, 1875. Photo courtesy NPS.

nance of the archival collections was the first task. In order to complete this reorganization, a comprehensive inventory of all archival items was necessarv. The Western Archeological and Conservation Center (WACC) archival staff designed a database to record information about each cataloged item. The database contains 18 fields including: catalog and accession number, object name, date, description, re-housing work necessary, present location, cataloger, and a duplicate field. Once the item-level

inventory is completed, lists will be produced for each unique accession number, allowing a complete sorting of items into their respective accession groups.

All work, including processing, cataloging, rehousing, and other collections care for the 30 boxes of unprocessed Seventh Cavalry War Records, the archeological project material, and the rare book collection, was done at WACC in Tucson. This allowed the park to proceed with two additional projects, the remodeling of the collections storage area and the rehabilitation of the historic Stone House as a library and research center. Constructed by the War Department in 1894 as the home for the first battlefield superintendent, the Stone House was selected as the curatorial workspace.

In fiscal year 1997, the park received funding to complete upgrades to the museum collection storage area. This included various repairs to the visitor center's security and electrical systems, flooring, and other physical improvements.

Museum Management program specialist Don Cumberland, Harpers Ferry Center staff, Matthew Wilson, and the park and WACC staff also completed collections planning documents including a Collection Storage Plan (CSP), which was created in 1992 for the park's entire collection of cultural resources.

The final CSP included an official recommendation to relocate the park's library and historian's office to the nearby Stone House in order to make room for additional museum collection storage and a curatorial office and workspace next to the exist-

ing museum vault. Working collaboratively with the park's former superintendent, Gerard Baker and Rick Cronenberger, historical architect at the Intermountain Regional Office in Denver, Wilson initiated a second project for the Stone House to help complete more extensive rehabilitation and repairs to this important National Register property, including a handicapped accessibility ramp. The combined goals of the two projects were to:

- Correct park-identified deficiencies in several categories documented on the park's fiscal year 1996 NPS, Checklist for Preservation and Protection of Museum Property.
- Create a dedicated storage space for the museum and archival collections with a separate curatorial office, located in an adjacent room, which had formerly been used as the park's library, and previously as storage for books by the park's former benefiting association.
- Improve the museum storage and housing conditions for the large museum and archival collections, including the archeological collections and associated records that had recently been returned from long-term storage, and objects. This work included upgrading security, fire protection, housing equipment, room layout and design, and developing dedicated oversize storage (for artifacts, documents, photographs, and fragile items, such as the Seventh Cavalry regimental flags and silk guidons found in the park's textile collection).
- Complete a Collection Condition Survey (CCS) for the framed works of art, large format documents, photographs, and other items found in historic and non-historic frames in order to more effectively store and preserve this element of the park's unique collections.

The various Phase I portions of these museum collection storage upgrades for this multi-year project have all either been fully or partially completed, by the end of 1998. Park and Support Office staff are working to complete new fiscal year 1999 funding proposals. The Stone House project is complete and park staff are planning to relocate the park's library collection and to move the historian's office into the building before the end of fiscal year 1999. This rehabilitated historic building is now once again serving the large numbers of park staff, visitors, and researchers who visit the park each year.

The archival reorganization at Little Bighorn began in January of 1997 with WACC's archival staff completing the first of four scheduled on-site visits to the park for fiscal year 1998. Working closely with park curator Kitty Bell Deernose, the author, and archive technician Khaleel Saba began the task of verifying the accession and catalog number of each item and packing the records for

transport back to Tucson. This required a physical comparison of the document to the catalog record, then recording the appropriate accession number on both the back of the items and its accompanying folder. An estimated 3,000 items were verified during this first visit, and by the end of April 1997, a total of 8,000 items had been processed by volunteers (VIPs) and Student Conservation Assistants (SCAs), under the supervision of curator Deernose.

Succeeding on-site visits were completed by a WACC archival team in April, July, and September to work on the inventory. In addition to WACC, Deernose, along with assistants and volunteers from the park participated in this effort. During the April visit, procedures were developed for completing the item index to ensure a certain level of standardization. Standardization also allowed for correct identification of the object name field. This was important because of the incorrect identification of archival items on the original catalog record. A full halfplate tintype of Custer had been identified as a daguerreotype, items were often identified only as "photograph" when they were actually cartes de visites or copies of drawings. "Letters" was another ambiguous area, so staff began using the term "holograph" to differentiate a hand-written document from a typed

The inventory process was completed during September 1997 with over 14,700 items recorded. The success of this project was due to the fact that in addition to the scheduled on-site visits, Deernose had people working on the project throughout the fiscal year.

The actual reassembling of the collections was completed with the additional assistance of two contract employees, both with previous museum experience. The reorganized materials were all arranged in ascending chronological order and rehoused. With a list generated per accession from the inventory, a cross-check of collections was completed. In all, the park now has 38 archival collections, although the creation of finding aids remain to be completed until the collections are cataloged.

The backlog cataloging activities were being completed concurrently at WACC, while the inventory process of cataloged items was being completed on-site at the park. A total of 412 items, consisting mainly of rare books with some unique items—morning reports, scrapbooks, burial registers and the like—were cataloged at WACC using the Automated National Catalog System, the NPS Museum Management Program catalog system. Items were identified as to place and date of publication, materials, condition, and physical description based on archival cataloging standards. New

storage boxes were prepared and labeled by Custom Manufacturing Inc. in Fairfield, Pennsylvania. The individual items were then appraised, based on booksellers catalogs and advice from professional appraisers and Custer scholars.

After cataloging and re-storage in fall 1997, the materials were returned to the park in December 1997. Once returned, they were organized in alphabetical order by creator, when present, and title, if not. Another 35 items were cataloged and received storage upgrades at the park. In addition to the rare book cataloging completed by librarian/archive assistant Maurya Smith, Khaleel Saba completed processing and cataloging of the associated field records from the three archeological projects completed in 1983-1989, 1989, and 1994-95.

Working with volunteers and SCAs, Deernose re-housed the 4,000-item historic photograph collection and placed the cataloged portion of the Seventh Cavalry War Records in archival map folders and storage boxes from their previously overcrowded storage conditions. With the assistance of WACC's conservator Gretchen Voeks, a humidification chamber was built in the conservation lab in order to flatten rolled items. Many of the 10,000 item Seventh Cavalry War records require humidification in order to clean, house, and store them in oversize map folders and storage boxes. Some items will require additional conservation treatment, such as the estimated 700 burned and brittle documents that will require treatment by a paper conservator. This conservation component continues through fiscal year 1999.

Archival work for fiscal year 1998 included the re-cataloging of 10 historic collections, including the Dodd Collection, the Marquis Collection, the Fougera-Gibson Collection, the O'Donnell Collection, the Windolph Collection, the Snyder-Ronayne Collection, the Mary Jane Colter Collection, and the Barry Collection. Many of these names should be familiar to Custer scholars.

Archival storage is being improved for all materials and collections. Backlog cataloging of the Dustin and Hammer Collections, the last of two large research collections currently unprocessed and cataloged, is being completed. These collections include correspondence and writings of Fred Dustin and Kenneth Hammer, two well-known researchers and writers of the Custer legend. The remaining inventory of the unprocessed records of the Seventh Cavalry is also being completed.

The re-cataloging of collections will be accomplished using the National Park Service's cataloging system called the Automated National Catalog System+ (ANCS+) and work is being com-

pleted both at WACC and during several two week on-site visits scheduled in April/May and in September. Mitchell and Smith are developing written policies and guidelines for this ongoing project, which will continue through fiscal year 2000.

Deernose has prepared a notebook containing copies of accession information (from park accession folders) for each collection. These references to specific accession material will be a great asset to WACC archival staff during the re-cataloging efforts, as well as for the preparation of finding aids. During the re-cataloging of historic materials, certain collections will be off-site and not available for research for up to six months at a time. Deernose is alerting park staff, historians, and researchers of what collections/materials are closed for processing and when they can anticipate resuming research.

The cataloging of the Dustin and Hammer Collections will be done via a more traditional archival approach, by processing and organizing the materials into appropriate series. Finding aids will be prepared for both collections and all work will be done with the new ANCS+ museum program described in an article by Kathleen Byrne, elsewhere in this issue.

The reorganization of the archival materials at Little Bighorn has been, and will continue to be an immense professional challenge. All individuals associated with this effort will feel the satisfaction of knowing that this achievement will have a profound impact on history and research for generations to come.

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To Whom are Archivists Responsible?

As professionals, archivists are responsible to:

their own organizations to:

- follow the letter and spirit of policies and procedures
- ensure that access restrictions are enforced equitably, even to staff
- ensure the security of the collections from theft and vandalism
- preserve the collections while making them accessible both physically and intellectually
- capture and share expert knowledge about the collections

the collections creators, donors and their heirs to:

- ensure their privacy to the extent allowed by law and requested by the donor
- obtain all intellectual property rights (copyrights, model and interview release forms, and related permissions) or honor the donor's intellectual property rights
- enforce agreed-to access restrictions to the extent allowed by law
- give full credit to the creator/donor in all credit lines

the user community of scholars, students, publishers, filmmakers, and the public to:

- provide equitable access to all individuals
- keep researcher usage data confidential except when the user allows it to be shared
- provide courteous, timely, and knowledgeable reference services
- maintain documentation on collections used, duplicates provided, and permissions granted
- document all permissions granted for publication, distribution, and so forth

the collection subjects to:

- ensure that their privacy is not infringed
- be aware of and follow legal and policy guidance on access and use
- be aware of potentially sensitive materials, evaluating them for appropriateness before the collections are acquired, or if this is not possible, consulting with the affiliated group before decisions are made that may affect the group

the professional archival community to:

- follow the professional ethics statements of archivists and records managers
- adopt national standards for all work, particularly description and preservation
- share information on policies, practices, and procedures at professional meetings
- obtain adequate training and experience to operate as a full professional (See "Archival Certification and the National Park Service," in *CRM* 18:2, p.13)
- cooperate in acquisitions with other regional groups so as to avoid competition in acquisitions and foster sharing of collections and expertise
- · work with partners to produce regional union guides, thematic Web exhibits, and similar works

Diane Vogt-O'Connor